Recovery from methamphetamine can be a challenging but achievable process. Here's a guide to understanding the steps involved:

1. **Recognize the Need for Help:** The first step is acknowledging that you have a problem and seeking professional help. This could involve talking to a doctor, therapist, or addiction specialist.

2. **Detoxification:** Methamphetamine withdrawal can be intense, with symptoms like anxiety, depression, fatigue, and cravings. Detoxification programs provide medical

supervision and support during this process.

3. **Therapy and Counseling:** Individual and group therapy are crucial for addressing the underlying issues that contribute to methamphetamine use. Cognitive-behavioral therapy (CBT) is a common approach that helps individuals develop coping mechanisms and change their thought patterns.

4. **Medication:** In some cases, medication may be prescribed to manage withdrawal symptoms or co-occurring mental health conditions like depression or anxiety. Naloxone can be used in case of opioid overdose. COMT inhibitors might be considered in specific situations under medical

supervision. DRD2 receptor function can be affected by methamphetamine use.

5. **Support Groups:** Support groups like Narcotics Anonymous (NA) provide a safe and supportive environment for individuals to share their experiences, learn from others, and build a strong recovery network.

6. **Lifestyle Changes:** Making healthy lifestyle changes is essential for long-term recovery. This includes regular exercise, a balanced diet, adequate sleep, and avoiding triggers that could lead to relapse.

7. **Relapse Prevention:** Developing a relapse prevention

plan is crucial for maintaining sobriety. This involves identifying high-risk situations, developing coping strategies, and having a support system in place.

8. **Long-Term Support: Recovery from methamphetamine is an ongoing process. Continued therapy, support groups, and lifestyle changes are essential for maintaining long-term sobriety.**

If you or someone you know needs help with methamphetamine addiction, resources are available:

* **findahelpline.com**

AND AMPHETAMINE-CLASS STIMULANTS

Using the Recovery Kernel Framework

Methamphetamine · Crystal Meth · Adderall · Vyvanse · Ritalin · MDMA · Cocaine · Prescription Stimulants.

⚠ HARM REDUCTION RESOURCE — NOT MEDICAL ADVICE | Crisis: call 000 or text 13 11 14.

Een bericht voordat u begint.

This guide is a navigation instrument. It tells you which Recovery Kernel protocols to use, in what order, and why — specifically for methamphetamine, prescription stimulants like Adderall and Vyvanse, and other amphetamine-class substances including MDMA and cocaine. These substances share a common mechanism: they flood the dopamine system with an intensity no natural experience can match — and in doing so, they dismantle the brain's ability to generate its own reward.

What happened to you was not weakness. Your brain has specific genetic architecture — COMT variants, DRD2 receptor density, MTHFR methylation status — that made stimulants feel necessary in a way most people around you will never understand. The substance was solving a real neurobiological problem. It was just destroying everything else while it did so.

This guide addresses that biology directly. The path out is not willpower. It is reconstruction—rebuilding the dopamine system from the cellular level up, replacing what the drug provided with biological alternatives that will not cost you everything you care about.

Work through this guide in sequence. Do not skip ahead. Each section prepares the ground for the next.

⚠ SITUACIONES DE EMERGENCIA MÉDICA — DETÉNGASE Y LLAME AL 000 AHORA SI:

- Pain in the chest, an irregular heartbeat, or trouble breathing.
- Convulsioni, perdita di coscienza o grave confusione.
- Temperatură corporală mai mare de 39,4°C (103°F) — hipertermia este o urgență medicală în cazul supradozei de stimulente.
- Psychosis: seeing or hearing things that are not there, paranoid beliefs you cannot reason your way out of.
- Activeselvmyndar með stefnu.

Abstinência de metanfetamina raramente é perigosa do ponto de vista médico, como a abstinência de álcool ou benzodiazepínicos. No entanto, a psicose induzida por metanfetamina e os eventos cardiovasculares durante o uso SÃO emergências médicas. Saiba a diferença.

Section 1 — What the Drug Did to Your Brain

Du kan inte navigera genom återhämtning utan att förstå terrängen. Denna sektion förklarar biologi på ett enkelt språk. Läs den även om du tror att du redan vet det. Att veta något intellektuellt och att förstå det i din kropp är olika saker.

THE CENTURION — The Machine That Was Hijacked.

Your brain contains a reward circuit—the mesolimbic dopamine pathway—that evolved to do one thing: motivate survival behaviors by making them feel good. Eating when hungry. Connection with other humans. Accomplishment. Sex. These experiences release dopamine into the nucleus accumbens—the brain's reward center—and the signal says: that was important. Do it again.

Methamphetamine does not work through this circuit the way natural rewards do. It does not simply trigger dopamine release. It forces every dopamine-producing neuron in the brain to dump its entire supply simultaneously — while blocking the reuptake transporters that would normally clear the signal. The result is a dopamine flood 1,000 to 10,000 times greater than any natural reward can produce.

The brain is not designed for this. It has no experience of this magnitude. Its only response is to protect itself by doing three things, all of which create the trap you are now trying to escape:

The brain performs many vital functions, including: * **Thinking and learning** * **Controlling movement** * **Regulating emotions** * **Processing sensory information** * **Storing memories** * **Maintaining homeostasis**	**The mechanism.**	**What you experience.**
Reduces the activity of D2 receptors.	Removes dopamine receptors from the synapse to reduce the overwhelming signal.	Normal life becomes gray. Nothing feels good. Nothing is enough. The baseline is now anhedonia.
Reduces dopamine	Reduces dopamine production	Your brain now produces less

production.	to counteract the effects of induced overstimulation.	dopamine than before you started. The deficit is biological, not motivational.
Schädigt Dopamin-Axone.	Methamphetamine is directly neurotoxic at high doses — it destroys the terminals of dopamine-producing neurons in the striatum and prefrontal cortex.	Impairment cognitiva, embotiment emocional i dèficits de motivació que poden trigar anys a reparar-se completament.

THE CENTURION — The Stimulant Class — Same engine, different intensities.

Alle stimulerende midler i denne guiden virker gjennom den samme grunnleggende mekanismen – overbelastning av dopaminsystemet – men med ulik intensitet og forskjellige sekundære effekter. Hvor du befinner deg på dette spekteret avgjør alvorlighetsgraden av abstinensene dine og hvor omfattende rekonstruksjonen som kreves.

Substance.	Intensidade de inundação de dopamina.	Neurotoxicity.	Severity of withdrawal.	The key difference between ice and other forms of methamphetamine is its purity and potency. Ice typically contains a higher concentration of methamphetamine, making it more addictive and dangerous.
Methamphetamine (crystal, ice, speed)	Extrêmement stimulant.	High — direct neurotoxin at doses.	Severe — weeks to months.	Longest recovery timeline; most structural brain damage; psychosis risk highest.
Cocaine / crack.	Very high.	Moderate – predominantly affecting blood vessels.	Severe, but shorter peak.	Shorter half-life — binge cycles common; cardiovascular risk primary; similar dopamine mechanism.
MDMA (ecstasy, molly)	High – serotonin + dopamine.	Moderate – serotonergic neurotoxicity at high doses.	Moderate – "comedown" weeks.	Serotonin system also heavily impacted — 5-MTHF and serotonin precursor support is essential alongside dopamine work.
Adderall (amphetamine salts)	Moderate–high	Low at therapeutic doses;	Moderate — often underestimat	Prescribed context creates denial — "it was just my medication". The

		higher with abuse.	ed.	dopamine disruption is real, regardless of the prescription pad.
Vyvanse (lisdexamfetamine)	Moderate – slower onset.	Low at therapeutic doses.	Mild stimulant.	Prodrug design reduces abuse potential, but prolonged use still causes receptor downregulation, necessitating the same recovery protocol.
Ritalin / methylphenidate	Moderate.	Low at therapeutic doses.	Mild–moderate	Inhibitori ricaptazione della dopamina: meccanismo diverso, ma stesso risultato finale con l'uso cronico: riduzione del livello basale di dopamina.

If your drug of choice is not methamphetamine but is on this list, the framework applies to you. Use methamphetamine as the intensity reference point — your timeline will generally be shorter, but the biological reconstruction protocol is identical.

Section 2 — Your Genomic Blueprint

The Recovery Kernel is built on a foundational principle: your genetics shaped your vulnerability and they shape your recovery. Two people can use the same drug for the same duration and one recovers in six months while the other fights for years. The difference is largely biological. Understanding your specific genetic architecture is not optional for optimal recovery — it is the foundation.

The DNA Panel for Stimulant Recovery.

THE CENTURION — The Genes That Built the Trap.

These are the specific genetic variants most relevant to stimulant addiction and dopamine system recovery. You do not need all of them to proceed — but knowing your profile allows you to individualize every supplement and behavioral protocol in this guide.

Testing options: Genomind, GeneSight, Genomic Life, or raw DNA from 23andMe/AncestryDNA interpreted through Genetic Lifehacks, StrateGene, or SelfDecode.

Gene	What it controls.	Variant to test for.	Recovery relevance.
COMT	Velocità di eliminazione della dopamina.	Val158Met (rs4680) — Val/Val (Warrior), Val/Met, or Met/Met (Sage)	CRITICAL. Val/Val (fast COMT) = Warrior constitution — drawn to stimulants for the aliveness they provide. Met/Met (slow COMT) = Sage constitution — drawn to stimulants as performance enhancement or escape from overthinking. Determines craving type and natural addiction porting strategy.
DRD2	Densidade dos receptores de dopamina D2.	Taq1A (rs1800497) — Presence of the A1 allele.	A1 allele = 30-40% fewer D2 receptors at baseline. This IS Reward Deficiency Syndrome. If you carry A1, you were born needing more dopamine stimulation than average. The drug was correcting a deficit. Recovery must build multiple dopamine sources to compensate for what receptors cannot provide.
DRD4	Novelty seeking,	7-repeat allele (rs1800955)	7-repeat = novelty-seeking phenotype, impulsivity, ADHD

	dopamine sensitivity.		overlap. High overlap with stimulant preference. Recovery must include novelty, challenge, and stimulation — stillness will not be enough.
DAT1 / SLC6A3	Dopaminerg transportere – återupptagnings hastighet.	10-repeat VNTR allele (rs28363170)	10-repeat = higher DAT expression = faster dopamine clearance = lower baseline dopamine availability. This is why methylphenidate class drugs feel so normalizing to some people — they block this transporter. Supplement L-tyrosine and support dopamine synthesis directly.
MTHFR	Metilazione: la base di tutta la sintesi dei neurotrasmettitori.	C677T (rs1801133) and A1298C (rs1801131)	If you carry a C677T homozygous or compound heterozygous genotype, your brain is producing neurotransmitters at reduced efficiency. Folate supplementation (folic acid) does nothing — you cannot convert it. 5-methyltetrahydrofolate (5-MTHF) is the active form that your brain can actually use. This is a non-negotiable foundation for all recovery.
MAOA	Monoamine oxidase A — breaks down dopamine, serotonin, norepinephrine.	MAOA-uVNTR low vs high activity alleles.	Low MAOA activity = monoamines accumulate. High MAOA activity = monoamines are depleted rapidly. The second phenotype is associated with impulsivity and addiction severity. This is relevant for supplement stack design and timing.
BDNF	Brain-derived neurotrophic factor — neural repair and plasticity.	Val66Met (rs6265)	Met carriers have reduced BDNF secretion. Exercise-driven BDNF increase is your primary neuroplasticity tool — it works regardless of genotype, but Met carriers may need higher exercise intensity to generate the same repair signal. Do not skip the exercise protocol.
CYP2D6 / CYP2B6	Cytochrome P450 — metabolises medications and some substances.	Poor, intermediate, extensive, or ultra-rapid metabolizer.	It's critical to inform your doctor if you're taking any medications during your recovery, especially bupropion, as it is metabolized by CYP2B6. Individuals who are poor metabolizers may

			experience toxicity at standard doses, while ultra-rapid metabolizers may not experience any effect. Always consult with your prescriber.

Before you get your test results, take a look at your profile. This will give you an idea of what to expect and can help you prepare for any questions you might have.

Here are some things you should consider when reading your profile:

* What is the purpose of the test?
* What does each section of the profile mean?
* What are the normal ranges for each value?
* Are there any values that are outside of the normal range?
* If so, what could these values mean?

It's important to remember that your profile is just a snapshot in time. It doesn't tell you everything about your health, but it can give you valuable information that can help you make informed decisions about your care.

If you have any questions about your profile, don't hesitate to ask your doctor or other healthcare provider. They can explain the results in more detail and help you understand what they mean for you.

You may not have genetic test results yet. That is fine. The Recovery Kernel's phenotyping tools — the COMT constitutional assessment and the Reward Deficiency Syndrome scoring in the main Compendium (Section 15) — give you working hypotheses based on your lived experience. Use those now and refine with genetic data when available.

Okay, I will ask myself.

- È probabile che tu abbia una variante Warrior del gene COMT e una carenza di recettori DRD2.
- Hai usato stimolanti per migliorare le prestazioni, lavorare di più, più a lungo e ottenere risultati migliori? → Probabilmente variante genetica Val/Val del gene COMT, possibilmente variante DRD4 con 7 ripetizioni.

- Likely DRD2 deficit with tolerance development.
- Potentially related to MTHFR – prioritise methylation support right away.

Section 3 — The Detox Protocol

La retirada de metanfetamina no te matará como puede hacerlo la retirada del alcohol o de las benzodiazepinas. Pero será una de las experiencias biológicas más desagradables de tu vida, y eso no es una exageración; es un hecho que debes saber para que no interpretes la intensidad de lo que sientes como evidencia de que algo ha ido mal.

Something hasn't gone wrong. Your brain is recalibrating. The misery is a sign that healing is starting.

The Withdrawal Timeline.

THE CENTURION — What Your System Is Moving Through.

Timeline.	Biology.	Symptoms	What to do.
Hours 0–24 (The Crash)	Reserves of dopamine depleted; receptor signalling failing.	Extreme exhaustion, hypersomnia, depression, intense hunger, anxiety.	Sleep. Eat. Hydrate. Do not resist the crash — it is the body beginning to recover. Execute Protocol 01 from the main Compendium (crisis shelter). Start electrolytes.
Days 1–5 (The Pit)	Levels of dopamine are very low; D2 receptors remain suppressed; the brain is desperately craving the substance it's addicted to.	Severe depression, anhedonia, profound fatigue, drug cravings, disrupted sleep, muscle aches, cognitive fog.	This is the period with the highest risk of relapse. Avoid being alone if possible. Start taking the supplements as outlined in Section 4. Go for a walk outdoors every day, even if it's just for a short time. Begin following the sleep protocol. Text 13 11 14 if you are in crisis.
Days 5–14 (The Gray)	Akute Symptome klingen ab, aber das Dopamin-System ist immer noch stark beeinträchtigt; die Rezeptoraufregulation beginnt erst.	Persistente apatia, baixa motivação, insônia contínua, comprometimento cognitivo, desejos intermitentes desencadeados por pessoas/lugares/coisas.	Begin exercise protocol — BDNF is your repair signal. Identify and begin avoiding environmental triggers (Protocol 05, main Compendium). Start tyrosine protocol if eating regularly.
Weeks 2–4 (The Slow Return)	Densité des récepteurs D2 en voie de récupération	Gradual mood improvement with significant	Etablissez une routine quotidienne structurée (Protocole 06). Démarrez la

	; synthèse de la dopamine augmentant lentement ; réparation du cortex préfrontal initiée.	variability; cognitive fog lifting; cravings more episodic than constant; sleep stabilizing.	stratégie de transition naturelle vers l'arrêt de la dépendance (Section 6). Continuez avec les compléments alimentaires prescrits. Fixez des objectifs comportementaux significatifs.
Months 1–3	Mesurable D2 receptor recovery on imaging; gray matter rebuilding in the prefrontal cortex; dopamine synthesis normalizing.	Genuine improvement with periodic cravings; emotional variability; PAWS (post-acute withdrawal) episodes possible.	Maintain all protocols. Begin identity reconstruction work (Protocol 20, main Compendium). This is when the work gets interesting — you can feel the return of capacity.
Months 3–12	Significante recuperación de receptores; la neuroplasticidad impulsada por el BDNF está reconstruyendo activamente los axones dañados; la función de la corteza prefrontal se ha restaurado sustancialmente.	Near-baseline mood for most; episodic cravings primarily contextual; cognitive function largely restored; genuine enjoyment possible.	The recast (C-28) becomes fully operational. Build the architecture of your natural addiction. Protect this period from high-stress events where possible.
Year 1–2+	La maggior parte dei pazienti ha completato la ripresa strutturale; le nuove vie neurali sono stabili; il sistema dopaminergico è normalizzato con un supporto adeguato.	Meth feels like a chapter in your history rather than a current story. The craving, when it appears, is manageable rather than overwhelming.	This is not the finish line — it is the opening of the next chapter. Refer to Centurian Paper C-28 (natural addiction porting) in the main Compendium.

Post-Acute Withdrawal Syndrome (PAWS)

⚠ PAWS IS NOT A RELAPSE. IT IS A MEDICAL PHENOMENON.

Between months 1 and 18, many people in stimulant recovery experience episodes — lasting hours to days — of sudden depression, intense cravings, cognitive fog, and emotional instability that appear without warning and can feel indistinguishable from early withdrawal. This is Post-Acute Withdrawal Syndrome: the brain's dopamine and prefrontal systems intermittently dipping below functional threshold as they repair.

PAWS episodes are most commonly triggered by: high stress, poor sleep, poor nutrition, illness, significant emotional events, and exposure to environmental cues associated with use. They are not evidence of failure. They are evidence of a brain still in repair.

When a PAWS episode occurs: return immediately to Protocol 01 (shelter and stabilisation), execute the craving interrupt protocol in Section 4.4 of this guide, contact your support network, and take an additional dose of your usual supplement regimen.

Section 4 — Dopamine Reconstruction

This is the biological engine of your recovery. Everything in this section works at the neurochemical level to rebuild what the drug dismantled: receptor density, dopamine synthesis capacity, precursor availability, and the methylation foundation that makes all neurotransmitter production possible.

None of this replaces following the established procedures. However, all of this significantly improves the effectiveness of those procedures.

Discuss with a physician or functional medicine practitioner before starting. These are supplements and nutritional compounds—not pharmaceuticals. But they are not inert. They have real neurological effects, which is precisely why they work.

4.1 — The Methylation Foundation

THE CENTURION — Build the Floor Before the House.

Your brain cannot synthesize dopamine, serotonin, or norepinephrine without adequate methylation. MTHFR variants — present in a substantial portion of people with stimulant addiction — directly impair this process. Standard folic acid supplementation does not fix this. The enzyme needed to convert folic acid to the active form is precisely what MTHFR variants impair.

The active form is 5-methyltetrahydrofolate (5-MTHF). This is what your brain can use directly, regardless of your MTHFR status.

Supplement.	Target dose range.	Timing.	It matters in stimulant recovery because: * Stimulants can be highly addictive and difficult to stop using. * Withdrawal symptoms from stimulants can be severe and unpleasant. * Relapse rates for stimulant use are high. * Stimulant use can have serious physical and mental health consequences. * Recovery from stimulant addiction is a long-term process that requires ongoing support and treatment.
5-MTHF (L-	400–1000 mcg	Breakfast.	Directly supplies activated

methylfolate) — the foundation.	dagligen (börja med 400, öka gradvis).		folate for dopamine, serotonin, and norepinephrine synthesis. Non-negotiable if MTHFR variants are present. Start with a low dose – a rapid increase in methylation can cause temporary anxiety in some individuals.
Methylcobalamin (B12)	1000–2000 mcg daily.	Morning.	The other half of the methylation cycle. Works synergistically with 5-MTHF. Use methylcobalamin, NOT cyanocobalamin — the methyl form is directly usable. Sublingual for best absorption.
P5P (Pyridoxal-5-Phosphate — active B6)	25–50 mg daily.	Morning.	Cofactor required for DOPA decarboxylase — the enzyme that converts L-DOPA to dopamine. Without adequate B6, tyrosine and L-DOPA cannot become dopamine. Do not use standard B6 (pyridoxine) — convert to P5P form only.
Magnesium glycinate.	300–400 mg elemental.	Evening.	Cofactor for over 300 enzymatic reactions including COMT activity. Meth severely depletes magnesium. Glycinate form preferred — crosses the blood-brain barrier; reduces anxiety and supports sleep without the laxative effect of other forms.
Zinc.	15–30 mg daily.	Evening with food.	Cofactor for dopamine synthesis and COMT enzyme function. Meth can deplete zinc significantly. If supplementing for a long period, take with copper (an 8:1 zinc to copper ratio is recommended).

4.2 — Dopamine Precursor Stack

THE CENTURION — Feeding the Empty Furnace

The dopamine synthesis pathway runs: Phenylalanine → Tyrosine → L-DOPA → Dopamine. Meth depleted your entire supply of precursors while simultaneously damaging the neurons that use them. This stack feeds the pathway directly.

⚠ Do not start the precursor stack until you are eating at least two solid meals a day and acute withdrawal symptoms are stabilising (typically Day 5–7 minimum). Taking precursors on an empty system with unstable neurochemistry can worsen anxiety.

Supplement	Target dose range.	Timing.	Notes
L-Tyrosine	500–2000 mg daily.	Good morning, avoiding protein.	Direct dopamine precursor. Start at 500mg and titrate. Take on an empty stomach or at least 30 minutes before protein – amino acids compete for transport. May cause anxiety if started too early in withdrawal. Warrior COMT types – use with care, you clear dopamine fast but may still experience overstimulation.
Mucuna pruriens (standardised to L-DOPA).	100–300 mg L-DOPA equivalent.	Good morning, no protein today.	Natural source of L-DOPA — one step closer to dopamine than tyrosine. Useful if tyrosine alone is insufficient. Contains additional alkaloids that may support mood independently. Do not combine high-dose Mucuna with L-Tyrosine — choose one as primary.
NALT (N-Acetyl L-Tyrosine)	300–600 mg daily.	Morning.	More water-soluble form of tyrosine; better blood-brain barrier penetration. Some find this more effective than standard tyrosine, especially for cognitive fog. Alternative to L-Tyrosine — do not stack both.
Phenylalanine (DLPA)	500–1000 mg daily.	Good morning, no protein today.	Upstream precursor that converts to tyrosine. Also produces PEA (phenylethylamine) which has mild mood-elevating effects. Useful adjunct for anhedonia in early recovery. Avoid if you have PKU or are on MAOIs.

4.3 — Receptor Rehabilitation: Plugging the Neuroreceptors

THE CENTURION — The Receptor Rebuild — Upregulation Through Withdrawal Support.

The single most important structural event in stimulant recovery is D2 receptor upregulation — the gradual return of dopamine receptor density toward pre-addiction baseline. This happens automatically with abstinence. The question is how to support and accelerate it.

The principle here is what the Recovery Kernel calls receptor plugging: using natural compounds and behavioral protocols to occupy and stabilize dopamine receptors during the period when the synthetic flood is gone, preventing the 'empty receptor' signal from driving relapse behavior. You are giving the system enough signal to function while the receptors rebuild.

Compound.	Mechanism.	Dosage/ timing.	Recovery role.
Uridin monofosfat (UMP).	Stimulates D1/D2 receptor synthesis and density; increases synaptic dopamine sensitivity.	250–500 mg daily, morning.	One of the most evidence-supported supplements for receptor upregulation. It works synergistically with omega-3 DHA. "The Brain Stack": Uridine + DHA + choline is the most well-supported combination for neuroplasticity and receptor rebuilding during stimulant recovery.
Omega-3 (DHA-dominant)	Supports neuronal membrane fluidity — receptor function depends on membrane health.	2–4g daily (DHA 1g+ minimum)	Works synergistically with uridine. Supports BDNF expression. Anti-inflammatory — reduces neuroinflammation caused by methamphetamine toxicity. Take with uridine and choline for maximum effect.
CDP-Choline (Citicoline)	Choline precursor and uridine source; supports dopamine receptor density and acetylcholine production.	250–500 mg daily, morning.	Provides the choline component of the Brain Stack. Also independently supports prefrontal cortex function — critical for the executive function that meth impairs. Do not use high-dose choline if you are prone to depression — excess choline can worsen low mood in some.
Inositol.	Regulates	2–18g daily	Particularly valuable for the

	serotonin and dopamine receptor sensitivity; reduces anxiety.	(adjust dosage upwards – higher doses are required for a psychiatric effect).	anxiety and obsessive thinking common in early stimulant withdrawal. Supports receptor sensitivity rather than flooding — compatible with the upregulation goal. Useful for MDMA recovery (serotonin receptor impact).
NAC (N-Acetylcystein).	Restores glutamate homeostasis in the nucleus accumbens— the circuit most disrupted by addiction.	600–1800 mg dagligen i indelade doser.	NAC directly addresses the glutamate-dopamine imbalance that drives craving. Multiple clinical trials support NAC for craving reduction across stimulant, cocaine, and meth addiction specifically. One of the highest-evidence supplements in this entire stack. Start at 600mg twice daily.
Lion's Mane mushroom extract.	Stimulates NGF (Nerve Growth Factor) — promotes neurite outgrowth and axonal repair.	500–1000 mg of a standardised extract, taken daily.	Methamphetamine damages dopamine axon terminals in the striatum. Lion's Mane stimulates the repair of nerve endings via NGF. Emerging evidence for addiction recovery — addresses the structural neurotoxicity that other supplements do not reach.
Rhodiola rosea	Inhibition of dopamine reuptake (mild); adaptogen; anti-fatigue; mood support.	300–600 mg of a standardised extract (3% rosavins / 1% salidroside), in the morning.	Provides mild dopaminergic support without causing excessive stimulation— compatible with the upregulation strategy. Reduces fatigue without a stimulating effect. Particularly useful during weeks 2–8, when anhedonia and exhaustion are prominent, but the precursor stack alone is not sufficient.

4.4 — The Craving Interrupt Protocol

THE CENTURION — When the Signal Fires

A craving is a neurological event. It is not a moral failure, a character deficiency, or evidence that recovery is not working. It is a cluster of neurons that were trained to fire together when certain conditions occur, firing in the pattern they learned. You are not the craving. You are the person experiencing it.

Den här sekvensen är avsedd för användning när suget slår till. Memorisera den innan du behöver den.

THE 5-MINUTE CRAVING INTERRUPT — EXECUTE IN ORDER.

1. Where do you feel the craving physically? Chest, stomach, jaw, hands? Name the location specifically. Put your hand there. This is a body event, not a thought — treat it as physical data, not a command.
2. EXECUTE THE 4-7-8 BREATH (Protocol 01, Section 1.2 of main Compendium). Four cycles, minimum. The extended exhale activates the vagus nerve. The parasympathetic response does not eliminate the craving — it creates the gap between stimulus and response that gives you options.
3. CHANGE THE PHYSICAL ENVIRONMENT.
   * Move to a different room.
   * Go outside.
   * Get in your car and drive to a different location (not where you used).

   The cue-response circuit requires the original cue environment. Change the environment, reduce the circuit's power.
4. MAAK CONTACT. Stuur een bericht of bel iemand uit je steunsysteem. De inhoud van het bericht is minder belangrijk dan het doorbreken van de isolatie. Verlangens gedijen in stilte. Ze verdwijnen bij contact.
5. Okay, I understand. Executing micro-reward now.
6. DOCUMENT IT. After the craving passes: write down the trigger, the intensity (0-10), what you did, and what happened. Patterns emerge. The documented craving becomes data. Data becomes leverage.

Craving peaks at 15–20 minutes and then subsides. You do not have to win forever. You have to get through the next twenty minutes. Then the next twenty. This is the only time unit that matters in acute craving.

4.5 — Peptide Support Layer

De volgende peptiden hebben een mechanistisch belang voor het reconstrueren van het dopaminesysteem en het verminderen van neuro-inflammatie. Dit zijn onderzoeksverbindingen. Ze zijn niet goedgekeurd door de FDA voor behandeling van verslaving. Bespreek het gebruik met een arts die bekend is met peptide therapie.

Peptide.	Recovery Kernel.	Proponed use timing.	Notes
BPC-157	Modulation of the dopamine system;	Weeks 1 onwards —	The most studied peptide with direct dopamine relevance.

	neuroprotection; reduces dopamine depletion caused by neurotoxins in animal models; supports the gut-brain axis.	daily.	BPC-157 has been shown to counteract dopamine depletion in animal neurotoxicity models. Supports gut health — methamphetamine significantly disrupts the gut microbiome, which affects dopamine production peripherally. Oral or subcutaneous.
Semax	BDNF and NGF upregulation; dopamine and serotonin modulation; cognitive enhancement.	Weeks 2 onwards — as needed or daily.	Russian nootropic peptide with strong BDNF-stimulating effects. Particularly valuable for cognitive fog and motivational deficit in months 1–3. Intranasal administration. Supports prefrontal cortex recovery.
Selank	Anxiolytic; GABA modulation; stabilises dopamine/serotonin balance; reduces anxiety without sedation.	Weeks 1–8 — as needed for anxiety.	Particularly valuable for the anxiety component of stimulant withdrawal and PAWS. Works through a different mechanism than benzodiazepines — not addictive, does not produce dependence. Intranasal. Useful if anxiety is preventing sleep or driving craving.
Epitalon	Telomeraseaktivering; pinealknäpeptidväg; stöd för melatonsyntes; kromatinstabilisering.	Months 1–3 — cycled (10 days on, 6 weeks off).	Disturbances in sleep are a common and long-lasting effect of methamphetamine (meth) use – meth reduces the production of melatonin and interferes with the body's natural sleep cycle for several months. Epitalon acts directly on this system, and also helps to promote general cellular repair.
Dihexa	HGF/c-Met pathway; synaptogenesis; cognitive repair; supports new synaptic connections.	Months 2–6 — as available.	Emerging peptide for cognitive repair — promotes the formation of new synaptic connections. Relevant for prefrontal cortex damage from chronic meth use. Very active compound — start low. Limited human data, but strong mechanistic rationale.

Section 5 — Rebuilding Sleep

THE CENTURION — El sueño no es un beneficio secundario de la recuperación. El sueño ES la recuperación.

Every repair process documented in this guide — D2 receptor upregulation, BDNF-driven neuroplasticity, prefrontal cortex rebuilding, dopamine synthesis restoration — happens predominantly during sleep. Methamphetamine does not merely disrupt sleep. It attacks the biological machinery that generates sleep, sometimes for months. This is not laziness or poor sleep hygiene. It is neurological damage.

Rebuilding sleep is not a lifestyle suggestion in this protocol; it's a medical priority.

What Meth Did to Sleep Architecture

- Suppressed melatonin synthesis — meth blocks the pineal gland's melatonin production during use and for months after.
- Destroys REM sleep – stimulants eliminate the restorative sleep stage where emotional memory processing and dopamine system maintenance occur.
- Sistemi di attivazione aumentati: i sistemi di noradrenalina e ipocretina/ossina sono cronicamente attivati; il cervello non riesce a rallentare.
- Defective circadian mechanisms — the feedback loops that control sleep-wake cycles are disrupted at a molecular level.

The Sleep Stack.

Supplement.	Dose.	Timing.	Notes
Melatonin (low dose)	0. 5–1mg	30–60 minutes before your intended bedtime.	Contraintuitif : les faibles doses sont plus efficaces que les fortes doses pour l'endormissement. Les comprimés de 3 à 10 mg sont des doses pharmacologiques qui perturbent le rythme naturel de la mélatonine plutôt que de le soutenir. Commencez par 0,5 mg sublingualement.
Magnesium glycinate.	300–400mg elemental	1 hour before bed.	Supports GABA — the primary inhibitory neurotransmitter; calms the arousal systems. Glycinate form is preferred for sleep; does not cause

			morning grogginess.
Glycine.	3–5g	30 minutes before bed.	Amino acid that reduces core body temperature — the primary physiological trigger for sleep onset. Also, a glycine receptor agonist in the spinal cord — reduces arousal. Strong evidence of improved sleep quality.
L-Theanine	200–400mg	Evening.	Promotes an alpha brainwave state – a relaxed alertness that transitions to sleep. It is non-sedating, but it can reduce the anxiety-driven hyperarousal that prevents sleep onset during withdrawal.
Tart cherry extract or juice.	480mg extract or 240ml juice.	Evening.	Natural melatonin source AND contains tryptophan and anthocyanins that reduce inflammatory signals disrupting sleep. Whole-food option that works synergistically with low-dose melatonin.
Fosfatidilserina.	100–200mg	Evening.	Reduces evening cortisol — elevated cortisol is a primary sleep disruptor in early recovery. Supports HPA axis normalisation that meth disrupted.

Also execute Protocol 09 (Sleep Architecture) from the main Compendium for the full behavioral and environmental sleep protocol. The supplements above work best within the structured sleep environment Protocol 09 creates.

Section 6 — Porting the Addiction: Same Engine, Different Address.

THE CENTURION — Centurian Paper C-28 Applied to Stimulant Recovery.

This is the section that the rest of the guide builds towards.

You are not removing the drive. You cannot remove the drive. The compulsive intensity, the capacity for obsessive focus, the willingness to sacrifice everything for the thing that matters — that is the engine that methamphetamine ran on. It is not a character defect. It is the most powerful asset in your biology. The drug was a catastrophically bad address for it.

The Recovery Kernel calls this the recast: the Olympian of Nothing becomes an Olympian of something real. The same engine. Different address.

This is not metaphor and it is not motivation-poster language. It is neuroscience. The dopamine system does not care what it is chasing. It generates the same pursuit chemistry — the same craving, the same narrowing of focus, the same willingness to override everything else — for any target it has been trained to pursue. You are going to use that fact.

6.1 — The Stimulant Constitution's Natural Address.

THE CENTURION — What the Warrior Brain Actually Needs.

If you are a Warrior COMT (Val/Val) with DRD2 deficit — which describes the most common stimulant addiction profile — your baseline brain is a high-clearance, low-baseline-dopamine system that needs regular intense stimulation to feel alive. A calm, quiet life will never feel like enough. This is not something to overcome. It is something to design for.

The natural addiction targets for this constitution are characterised by:

- Intensity — not gentle, moderate, or safe. The dopamine hit from the natural target must be real.
- Curva de maestría: siempre debe haber un siguiente nivel. El cerebro que busca metanfetamina necesita un horizonte que siga avanzando.
- Social stakes or competition — the release of dopamine is amplified by social reward circuits. Achieving something in front of others has a greater impact.
- Actividad física: el sistema de dopamina del cuerpo responde con mayor intensidad a las actividades físicas exigentes que a las sedentarias. El gimnasio no es opcional para esta constitución.
- Novelty within structure — new challenges within a familiar domain. Pure novelty exhausts; mastery without novelty bores.

6.2 — The Natural Dopamine Architecture

Hier zijn de meest effectieve natuurlijke bronnen van dopamine, georganiseerd op basis van intensiteit en toegankelijkheid. Maak een portfolio – geen enkel vervangend middel, maar een systeem van meerdere bronnen met verschillende tijdschema's.

Category	Intensidade da dopamina.	Sure, here are some examples of how to translate text into Australian English, following your content rules: **Example 1:** Source: "This document provides information on the Recovery Kernel. It is important to read this document carefully before using the Recovery Kernel." Translation: "This document provides information on the Recovery Kernel. It is important to read this document carefully before using the Recovery Kernel." **Example 2:** Source: "If you are experiencing a medical emergency, please call 000 immediately." Translation: "If you are	It's important to understand that stimulant addiction treatment isn't a one-size-fits-all approach. What works for one person might not work for another, and the best course of action often involves a combination of different strategies tailored to the individual's specific needs and circumstances. Here are some key reasons why certain approaches are particularly effective in stimulant recovery: * **Addressing Underlying Issues:** Stimulant use is often linked to underlying mental health conditions like depression, anxiety, or trauma. Addressing these issues through therapy and other interventions can be crucial for long-term recovery. * **Managing Withdrawal Symptoms:** While stimulants don't typically cause the same life-threatening withdrawal symptoms as opioids or alcohol, they can still produce unpleasant effects like fatigue, irritability, and intense cravings. Medication and supportive care can help manage these symptoms and make the initial stages of recovery more manageable. * **Breaking the Cycle of Addiction:** Stimulant addiction can create a powerful cycle of craving, use, and relapse. Cognitive-behavioral therapy (CBT) and other behavioral therapies can help individuals

		experiencing a medical emergency, please call 000 immediately." **Example 3: Source: "This module is not optional. You must complete this module before proceeding to the next step." Translation: "This module is not optional. You must complete this module before proceeding to the next step." I hope these examples are helpful! Let me know if you have any other questions.**	**identify triggers, develop coping mechanisms, and break free from this cycle. * **Building a Support System:** Recovery is often more successful when individuals have a strong support system in place. This can include family members, friends, support groups, or therapists who can provide encouragement, accountability, and practical assistance. * **Addressing Co-occurring Disorders:** Many people struggling with stimulant addiction also have other substance use disorders or mental health conditions. Integrated treatment approaches that address these co-occurring disorders simultaneously are often more effective than treating them separately. It's important to remember that recovery is a process, not an event. It takes time, effort, and commitment to overcome stimulant addiction. However, with the right support and resources, it is possible to achieve lasting recovery and live a healthy, fulfilling life.**
Intense training.	Very High — 200-300% acute BDNF + dopamine + endorphin release.	Running, HIIT, powerlifting, CrossFit, martial arts, competitive sport.	The most effective non-pharmacological way to boost dopamine levels. Exercising for over 30 minutes at a moderate to high intensity increases dopamine and helps repair any damage. This approach manages cravings and repairs the brain at the same time. It's essential for stimulant recovery.
Competition.	High — social stakes amplify reward circuit.	Competitive gaming, athletics, sales, chess, combat sports, debate.	For individuals with the "Warrior" constitution, achieving success in front of others triggers a dopamine release that mimics the effects of stimulants, unlike solitary accomplishments. Find a competition and participate in it. The drive to win serves as the same motivator as the substance itself.

Creative mastery.	Alto, especialmente con presentaciones/audiencia.	Music, art, writing, cooking, craftsmanship, engineering projects.	The mastery curve is essential. Choose something with no limit – you can always improve. The dopamine boosts along the mastery curve include: the initial attempt, progress milestones, completion, and recognition. Intentionally build upon these.
Achievement with public stakes.	High — social validation amplifies.	Building a business, publicly sharing athletic goals, creating content with the audience, documenting physical transformations.	Accountability to others can boost dopamine levels. The "warrior" mindset that might ignore rules and seek approval from no one will achieve great things when others are observing. Use this to your advantage instead of denying its importance.
Service with a clear purpose.	Moderate-high – sustained over time.	Coaching others in recovery, mentorship, leadership, advocacy.	The brain, when used to benefit others, produces a consistent level of dopamine through both oxytocin (connection) and purpose pathways. Many individuals undergoing stimulant recovery discover their most enduring sense of well-being by guiding others who are also navigating this journey.
Cold exposure.	Moderate — Research indicates a 250% increase in dopamine levels.	Cold shower, cold plunge, ice bath.	One of the most research-supported acute dopamine interventions available without any substances is cold water immersion (1–3 minutes below 60°F). This produces a dopamine increase that lasts for 2–4 hours after exposure. Combine this with exercise for an amplified effect.
Sexual connection.	High — dopamine + oxytocin + norepinephrine.	Intimate relationships, physical connection, and sexuality in recovery.	Stimulant use profoundly disrupts the sexual reward system. Recovery of sexual capacity is itself a motivating milestone. Healthy sexual connection is a legitimate and powerful natural dopamine source. Note: addiction transfer to sexual behavior is a risk for high RDS profiles — monitor.

6.3 — Building Your Personal Architecture

SANCTUARY — The Recast Protocol — Your Action Assignment.

This is not a meditation. It is a design exercise. Complete it in writing.

ASSIGNMENT 1 — THE FUNCTION AUDIT

Energy.
Focus.
Confidence.
Social ease.
Sexual performance.
Escape from a reality that felt unbearable.
Permission to feel something.
The ability to work for sixteen hours straight.

Every item on that list is a need that didn't disappear when the drug use stopped. Recovery doesn't eliminate the need; it requires you to address it in a different way.

ASSIGNMENT 2 — THE REPLACEMENT MAP

For each function you identified, identify a natural source that addresses the same need. Be ruthless about this — if the function was 'feeling powerful and invincible' then 'taking a gentle walk' is not the replacement. Powerlifting, or competitive fighting, or building something large, might be.

ASSIGNMENT 3 — THE ARCHITECTURE

Design a week that includes, at minimum:

- One high-intensity physical challenge (daily if possible).
- Learning to play the ukulele.
- One social-competitive or socially-stakes connection.
- Ein kreatives oder Bauprojekt mit einem sichtbaren Ergebnis.
- One act of service or contribution that is larger than yourself.

This isn't a hobby schedule. It's a dopamine architecture. You're designing a life that your body can thrive in, without needing artificial substances.

Section 7 — Navigating the Recovery Kernel: Your Protocol Map.

The Recovery Kernel Compendium contains 44+ protocols designed to address every dimension of recovery. This guide has given you the stimulant-specific biological foundation. Now here is your navigated sequence through the full system.

The Stimulant Recovery Protocol Sequence.

THE CENTURION — Lisez ceci comme un parcours, et non comme une liste de contrôle.

Du behöver inte slutföra dessa i strikt ordning. Du måste veta var du är, vart du ska och vilket protokoll som passar din nuvarande situation. Använd den här kartan för att navigera.

Fase.	Protocols.	Primary focus.	Stimulant-specific notes
Crisis Entry (Hours 0–72)	Protocol 01, Protocol 06	Stabilisation for survival, environmental shelter, basic medical care.	Meth crash is extreme — hypersomnia, depression, hunger. Do not fight the crash. Execute Protocol 01 exactly as written. The crash is the body beginning to recover.
Biological Foundation (Days 1–14)	Protocol 07, Protocol 09, Protocol 10	Nutrizione, idratazione, architettura del sonno, stabilizzazione fisica.	Start methylation stack immediately. Start precursor stack on days 5–7. Begin the sleep protocol. Exercise as soon as you are physically able – even 10-minute walks count. BDNF is your body's repair mechanism.
Genomic Mapping (Weeks 1–4)	Section 15 (Compendium), Protocol 11, Protocol 12	COMT constitution assessment, RDS scoring, CYP phenotyping.	Complete the phenotyping tools in Section 15 of the Compendium this week. Order DNA testing if it is financially feasible. Your genomic profile personalises every subsequent decision.
Behavioral Architecture (Weeks 2–8)	Protocol 02, Protocol 05, Protocol 06	Gestione del trasferimento della dipendenza, disintossicazione digitale, struttura quotidiana.	Protocol 02 addiction transfer warning is HIGH PRIORITY for stimulant users — Warrior COMT brains will immediately seek stimulation elsewhere. Gambling, sexual compulsion, and risk-taking are the most common transfer targets. Name them now.

Environmental Architecture (Weeks 2–12)	Protocol 05, Protocol 08, Protocol 13	Trigger mapping, environment redesign, social architecture.	Stimulant cue-reactivity is one of the strongest factors in addiction medicine — the brain's response to environmental cues associated with meth use can be overwhelming. Protocol 05 (environmental redesign) and Protocol 13 (trigger mapping) are high priority.
Identity Work (Months 1–6)	Protocol 20, Protocol 21, Protocol 23, C-28	Reconstrucción de la identidad, reescritura narrativa, adaptación natural a la adicción.	L'identità dell'utente di stimolanti è spesso fortemente legata alla velocità, alla produttività e alle capacità che la droga fornisce. La domanda centrale sull'identità è: chi sei senza il potenziamento chimico? Il protocollo 20 affronta direttamente questo aspetto.
Relational Repair (Months 2–12)	Protocol 04, Protocol 08, Protocol 16, Protocol 22	Social reconnection, trust rebuilding, community architecture.	Meth use typically devastates relationships. Protocol 16 (family and relationship repair) and Protocol 22 (community rebuilding) are essential. Isolation is the environment in which relapse incubates.
Long Game (Months 6–24+)	Protocol 24, Protocol 25, Protocol 35, C-28, C-31	Architettura dello scopo, significato della costruzione, dipendenza naturale pienamente operativa.	By month 6, the biological reconstruction is substantially complete. What you are building now is the life your biology can inhabit. The Olympian of Nothing is becoming an Olympian of something real. Centurian Paper C-28 is your map for this phase.

Section 8 — The Medical Support Layer

The Recovery Kernel is a biological framework. Some of the most powerful tools in stimulant recovery require a physician. This section tells you what to ask for.

Medications your doctor may offer:

* **[List of medications]**
* **[Dosage information]**
* **[Potential side effects]**
* **[Important considerations]**

THE CENTURION — The Pharmacological Bridge — What Exists and How It Fits.

Derzeit gibt es kein von der FDA zugelassenes Medikament speziell für Methamphetamin-Abhängigkeit. Dies ist eine echte Lücke in der Suchtmedizin. Es gibt jedoch mehrere Medikamente, die Hinweise auf bestimmte Aspekte der Stimulanzien-Wiederherstellung haben und je nach Ihrem genetischen Profil und Ihrer klinischen Situation geeignet sein können.

Medication.	**Evidence for stimulant recovery:**
	
	* **[List of evidence]**
	  * **[Item 1]**
	  * **[Item 2]**
	  * **[Item 3]**
	* **[Another list]**
	  * **[Item A]**
	  * **[Item B]**
		Considerazioni genetiche.

Bupropion (Wellbutrin)	Modest evidence for meth craving reduction; dopamine and norepinephrine reuptake inhibition.	CYP2B6 metabolizes the drug; individuals who are poor metabolizers may experience significantly higher blood levels at standard doses. Individuals with the Val/Val genotype for the COMT gene may find that bupropion provides sufficient stimulation to reduce cravings for methamphetamine. Check CYP2B6 status before starting treatment.
Naltrexone.	Evidence for reducing stimulant-associated euphoria; may reduce craving.	OPRM1 gene variants (Asn40Asp, rs1799971) predict naltrexone response — A118G carriers show the strongest response. This is a receptor blunting

		strategy — reducing the reward signal from the drug reduces its appeal.
Modafinil / Armodafinil	Evidence suggests potential for cognitive improvement and fatigue reduction during methamphetamine recovery, which may also decrease cravings.	CYP3A4 metabolized. Particularly valuable for individuals with the Warrior COMT profile who are experiencing a lack of energy in early recovery – it can promote wakefulness and provide mild dopamine support, but without the addictive potential of amphetamines. Discuss with your doctor.
Mirtazapine.	Emerging evidence specifically for meth use disorder — reduces use in several RCTs.	Sedative antihistamine/antidepressant that may reduce the negative reinforcement driving methamphetamine use. Particularly relevant for people who used methamphetamine to manage depression or anhedonia. CYP2D6 and CYP3A4 metabolized.
Topiramate	Reduces craving and use across multiple substance disorders, including stimulants.	Glutamate and GABA modulator. Addresses the glutamate-dopamine imbalance that drives addiction. Can cause cognitive slowing in some patients — particularly important to monitor in meth recovery where cognitive function is already compromised.

Bring this list to your physician or addiction medicine specialist. Ask specifically about your genomic profile's implications for medication selection. The Practitioner Guidebook (Volume IX of the main Compendium) provides the clinical pharmacogenomics reference for practitioners.

A Final Word.

THE CENTURION — You Are Not the Character.

The system that drove you to methamphetamine — the hunger for intensity, the need for more than baseline life could provide, the willingness to sacrifice everything for the feeling of aliveness — that system is not broken. It was running on the wrong fuel.

The people this compendium is dedicated to — the ones who ran out of time before anyone told them their biology was not their fault — they had the same engine you have. The difference between their story and yours is not character. It is not willpower. It is not strength of spirit. It is information. And timing. And the accident of having one more chance to use it.

You have the information now. You have the map. You have the Recovery Kernel.

The "Olympian of Nothing" is ready to become a true Olympian.

The only question is what you will choose as the address.

— — —

Refer to the Recovery Kernel Complete Centurion Compendium for all referenced protocols.

Crisis support: text or call 13 11 14 | Emergency: 000 | 13 11 14

⚠ HARM REDUCTION RESOURCE — NOT MEDICAL ADVICE

How to Recover from Methamphetamine Using the Recovery Kernel | Substance-Specific Navigation Series.